

PROTECTION OF GLAZED OPENINGS USING WOOD STRUCTURAL PANELS

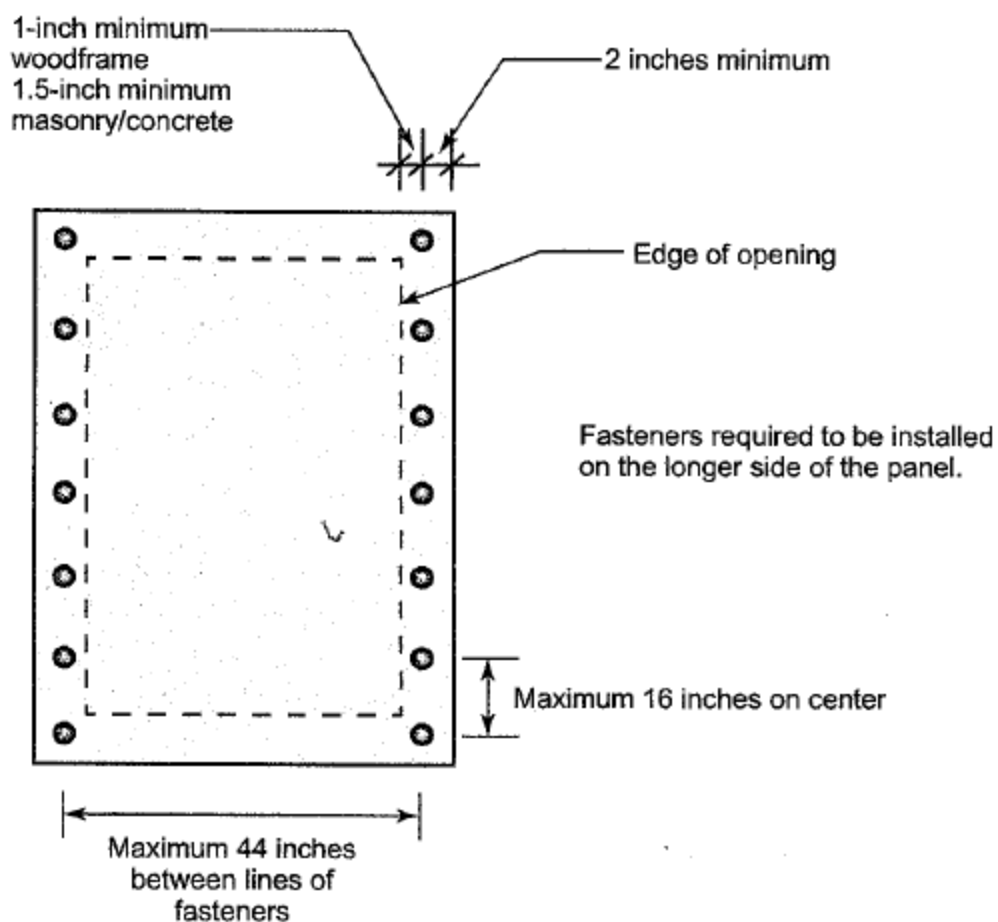
The prescriptive attachment provisions for using wood structural panels as glazed opening protection has been modified with the adoption of the Florida Building Code, RESIDENTIAL, 6th Edition, EFFECTIVE December 31, 2017. This change is significant since it limits the structural wood panel span length to a maximum of 44-inches between the lines of fasteners and now requires the fasteners to be installed on the longer side of the panel. Please be sure to adjust your construction plan details accordingly.

Per Section R301.2.1.2 – “Wood structural panels with a thickness of not less than $\frac{7}{16}$ inch (11 mm) and a span between lines of fasteners of 44 inches (1118 mm) shall be permitted for opening protection in residential buildings with a mean roof height of 33 feet or less in locations where V_{ult} is 180 mph or less.

Panels shall be precut to overlap the wall such that they extend a minimum of 2 inches (50.8 mm) beyond the lines of fasteners and attached to the framing surrounding the opening containing the product with the glazed opening. Panels shall be predrilled as required for the attachment method and secured with corrosion-resistant attachment hardware permanently installed on the building.

- a. *Attachments shall be designed to resist the component and cladding loads determined in accordance with either Table R301.2(2) or ASCE 7, with the permanent corrosion-resistant attachment hardware provided and anchors permanently installed on the building.*
- b. *As an alternative, panels shall be fastened at 16 inches (406.4 mm) o.c. along the edges of the opposing long sides of the panel.*
 - i. **For wood frame construction**, fasteners shall be located on the wall such that they are embedded into the wall framing members, nominally a minimum of 1 inch (25.4 mm) from the edge of the opening and 2 inches (50.8 mm) inward from the panel edge. Permanently installed anchors used for buildings with wood frame wall construction shall have the threaded portion that will be embedded into the wall framing based on $\frac{1}{4}$ -inch (6.35 mm) lag-screws and shall be long enough to penetrate through the exterior wall covering **with sufficient embedment length to provide an allowable minimum 300 pounds ASD design withdrawal capacity.**
 - ii. **For concrete or masonry wall construction**, fasteners shall be located on the wall a minimum of 1.5 inches (37.9 mm) from the edge of the opening and 2 inches (50.8 mm) inward of the panel edge. Permanently installed anchors in Concrete or masonry wall construction shall have an allowable minimum 300 pounds ASD design withdrawal capacity and an allowable minimum 525 pounds ASD design shear capacity with a 1.5 inch edge distance. Hex nuts, washers, wing-nuts, or bolts used to attach the wood structural panels to the anchors shall be minimum $\frac{1}{4}$ -inch hardware and shall be installed with or have integral washers with a minimum 1-inch outside diameter.
 - iii. *Vibration-resistant alternative attachments designed to resist the component and cladding loads determined in accordance with provisions of Table R301.2(2) or ASCE 7 shall be permitted.”¹*

¹ Florida Building Code, Residential, 6th Edition (2017)
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Wood structural panel opening protection attachment